

Listing of the claims

1. (Currently Amended) A layered video encoding system, comprising:  
  
a base layer encoder for receiving a video signal and outputting a base layer stream; and  
  
an enhancement layer encoder that includes a plurality of discrete cosine transform (DCT) modules and a selection system for selecting only one of the DCT modules to perform a DCT computation, wherein each of the plurality of DCT modules comprises a different precision and wherein the selection is made before the DCT computation is performed.
2. (Canceled).
3. (Original) The layered video encoding system of claim 1, wherein the selection system selects one of the DCT modules based on an available level of computing resources.
4. (Original) The layered video encoding system of claim 1, wherein the selection system selects one of the DCT modules based on an encoding bit rate.
5. (Original) The layered video encoding system of claim 1, wherein the selection system selects one of the DCT modules based on a required quality level.
6. (Original) The layered video encoding system of claim 1, wherein the selection system selects one of the DCT modules based on a decoder capability.

7. (Original) The layered video encoding system of claim 1, wherein the selection system selects one of the DCT modules based on bandwidth availability.

8. (Currently Amended) A program product stored on a recordable medium for encoding a layered video signal, the program product comprising:

means for receiving a video signal and outputting an encoded base layer stream;

and

means for encoding an enhancement layer, wherein the enhancement layer encoding means includes a plurality of discrete cosine transform (DCT) modules and selection means for selecting only one of the DCT modules to perform a DCT computation, wherein each of the plurality of DCT modules comprises a different precision and wherein the selection is made before the DCT computation is performed.

9. (Canceled).

10. (Original) The program product of claim 8, wherein the selection means selects one of the DCT modules based on one of the group consisting of: an available level of computing resources; an encoding bit rate; a required quality level; a decoder capability; and bandwidth availability.

11. (Currently Amended) A method of encoding a video signal in a layered manner, comprising:

receiving the video signal in a base layer encoding system;

outputting an encoded base layer stream;

receiving data from the base layer encoding system into an enhancement layer encoding system;

providing a plurality discrete cosine transform (DCT) modules in the enhancement layer encoding system, wherein each of the plurality of DCT modules comprises a different precision;

selecting only one of the plurality of DCT modules to perform a DCT computation wherein the selection is made before the DCT computation is performed;

and

generating an encoded enhancement layer stream using the selected DCT module.

12. (Original) A layered video decoding system, comprising:

a base layer decoder for receiving and decoding a base layer video stream; and  
an enhancement layer decoder for receiving an enhancement layer video stream  
and generating a decoded enhanced video output, wherein the enhancement layer decoder  
includes:

a plurality of inverse discrete cosine transform (IDCT) modules; and  
a selection system for selecting one of the IDCT modules.

13. (Original) The layered video decoding system of claim 12, wherein each of the  
plurality of IDCT modules comprises a different precision.

14. (Original) The layered video decoding system of claim 12, wherein the selection  
system selects one of the IDCT modules based on an available level of computing  
resources.

15. (Original) The layered video decoding system of claim 12, wherein the selection  
system selects one of the IDCT modules based on a preferred bit rate.

16. (Original) The layered video decoding system of claim 12, wherein the selection  
system selects one of the IDCT modules based on a required quality level.

17. (Original) The layered video decoding system of claim 12, wherein the selection  
system selects one of the IDCT modules based on a communication bandwidth.

18. (Original) A program product stored on a recordable medium for decoding a layered video stream, comprising:

means for receiving and decoding a base layer video stream; and

means for receiving an enhancement layer video stream and generating a decoded enhanced video output, including:

a plurality of inverse discrete cosine transform (IDCT) modules; and

means for selecting one of the IDCT modules.

19. (Original) The program product of claim 18, wherein each of the plurality of IDCT modules comprises a different precision.

20. (Original) The program product of claim 19, wherein the selection means selects one of the IDCT modules based on one of the group consisting of: an available level of computing resources; an encoding bit rate; and a required quality level; a decoder capability; and bandwidth availability.

21. (Original) A method of decoding a layered video stream, comprising:
- receiving an encoded base layer stream into a base layer decoder;
  - decoding the encoded base layer stream and generating a decoded base layer stream;
  - providing an enhancement layer decoder having a plurality of inverse discrete cosine transform (IDCT) modules;
  - receiving an encoded enhancement layer stream into the enhancement layer decoder;
  - selecting one of the plurality of IDCT modules; and
  - decoding the encoded enhancement layer using the selected IDCT module.